

REMARKS

This paper is being provided in response to the Office Action dated August 25, 2006, for the above-referenced application. In this response, Applicant has amended claims 1, 3, 4, 5, 13, 15, 16 and 18 and added new claims 19 and 20 to clarify that which Applicants regard as the invention. Applicant respectfully submits that the amendments to the claims and the new claims are fully supported by the originally-filed specification. Further, Applicant has amended the specification to correct typographical errors and respectfully submit that the amendments to the specification do not add new subject matter.

Applicant thanks the Examiner for the indication of allowable subject matter in claims 4, 5, 15 and 16. Applicants have added new claims 19 and 20 that incorporate subject matter indicated as being allowable from the above-noted claims indicated and, accordingly, submit that the new claims are allowable over the cited prior art.

The rejection of claims 1-3, 6, 8, 11, 13, 14 and 18 under 35 U.S.C. 102(b) as being anticipated by JP 4-58596 to Suzuki, et al. (hereinafter "Suzuki") is hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

Independent claim 1, as amended herein, recites a method of shielding a circuit device including providing a circuit board on which an electronic component has been mounted and which has a ground connection portion. An entire portion of the circuit board is inserted into a shield pack having a sack shape, the shield pack having an insulating layer as an innermost layer

and an electric conductive layer as an outermost layer. The insulating layer of the shield pack contacts the electronic component and the circuit board. The ground connection portion of the circuit board is connected to the electric conductive layer of the shield pack. A ground connection terminal is connected to the ground connection portion, the ground connection terminal including a tip portion and a base portion, the tip portion being inserted through the shield pack. A bottom area of the tip portion is disposed on a surface of the outermost layer and the base portion is disposed within at least the outermost layer. A sectional area of the base portion is smaller than the bottom area of the tip portion. Claims 2-12 depend directly or indirectly from independent claim 1.

Independent claim 13, as amended herein, recites an electromagnetically shielded device that includes a circuit board on which an electronic component has been mounted and which has a ground connection portion. A sack-shaped shield pack covers an entire portion of the circuit board, the shield pack having an insulating layer as an innermost layer and an electric conductive layer as an outermost layer. An electric conductive connection component passes through the shield pack to the circuit board to connect the ground connection portion to the electric conductive layer of the shield pack. The electric conductive connection component includes a tip portion and a base portion, the tip portion being insertable through the shield pack. A bottom area of the tip portion is disposed on a surface of the outermost layer and the base portion is disposed within at least the outermost layer. A sectional area of the base portion is smaller than the bottom area of the tip portion. Claims 14-18 depend directly or indirectly from independent claim 13.

The Suzuki reference discloses an electromagnetic shield for circuit components of a printed wiring circuit. A partitioning conductor 3 is installed in the grounded printed wiring circuit 6. A printed wiring board 1 and an electronic circuit board 2 are covered with an insulating seal 4 made of releaseable sealing resin and a conductive coating 5 is applied. The Office Action cites to the insulating seal 4 and conductive coating 5 as a shield pack. (See Fig. 3 of Suzuki).

Applicant's independent claims, as amended herein, recite a method and device for electromagnetic shielding that includes at least the features of a ground connection terminal that is connected to the ground connection portion, the ground connection terminal (or electric conducting connection component) including a tip portion and a base portion, the tip portion being inserted through the shield pack, wherein a bottom area of the tip portion is disposed on a surface of the outermost layer and the base portion is disposed within at least the outermost layer, and wherein a sectional area of the base portion is smaller than the bottom area of the tip portion. Applicant has found that a configuration as recited for electromagnetic shielding offers enhanced operational, reinforcement and security benefits. (See, for example, page 5, lines 18-24 and page 13, line 17 to page 14 line 10 of the originally-filed specification.)

Applicant submits that Suzuki does not teach or fairly suggest at least the above-noted features as claimed by Applicant. In particular, the partitioning conductor 3 of Suzuki does not disclose the features of a ground connection terminal as recited by Applicant. Accordingly, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

The rejection of claims 7 and 17 under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of JP 2000-223647 to Nakayama, et al. (hereinafter “Nakayama”) is hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

The features of independent claims 1 and 13 are discussed above with respect to Suzuki. Claims 7 and 17 depend therefrom.

The Nakayama reference discloses manufacture of a high frequency module including a substrate 2 with electronic components 3 and having ground terminals 6a-d. (See Figs 1 and 2 of Nakayama.) The Office Action cites to Nakayama as disclosing a through-hole to connection a ground connection portion with an electric conductive layer.

Applicant submits that Nakayama does not overcome the above-noted deficiencies of the Suzuki reference with respect to Applicant’s presently-claimed invention. Applicant submits that neither Suzuki nor Nakayama, taken alone or in combination, teach or fairly suggest at least the above-noted features as claimed by Applicants. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

The rejection of claims 9 and 10 under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of U.S. Patent App. Pub. No. 2002/0129951 to Babb, et al. (hereinafter “Babb”) and U.S. Patent No. 5,557,064 to Isern-Flecha, et al. (hereinafter “Isern-Flecha”) and the rejection of claim 12 under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Babb

are hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

The features of independent claim 1 are discussed above with respect to Suzuki. Claims 9, 10 and 12 depend therefrom.

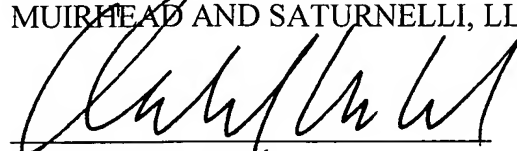
The Babb reference discloses a board-level EMI shield that adheres and conforms with printed circuit board components and board surfaces. The Office Action cites to Babb as disclosing the use of an adhesive agent to prevent dielectric coating from separating from the surface to which it is applied.

The Isern-Flecha reference discloses a conformal shield including a conformal shield base and a conductive layer. The Office Action cites to Isern-Flecha as disclosing the use of a vacuum-sucking air for assisting with a conformable material that can be adapted to the shape of articles.

Applicant submits that neither Babb nor Isern-Flecha overcome the above-noted deficiencies of the Suzuki reference with respect to Applicant's presently-claimed invention. Applicant submits that neither Suzuki, Babb, nor Isern-Flecha, taken alone or in combination, teach or fairly suggest at least the above-noted features as claimed by Applicants. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

Based on the above, Applicants respectfully request that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 508-898-8603.

Respectfully submitted,
MUIRHEAD AND SATURNELLI, LLC

A handwritten signature in dark ink, appearing to read 'Donald W. Muirhead', is written over a horizontal line.

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